

Press Release

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ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY FUNDS FIVE TRAINEESHIPS AND AWARDS \$188,432 IN BASIC RESEARCH GRANTS

The Board of Directors of the Arkansas Science & Technology Authority approved funding for five U.S. Department of Energy EPSCoR traineeships and awarded \$188,432 in Basic Research Grants at its January 21 meeting.

The Authority approved \$65,000 in matching grants to support five energy-related graduate traineeships funded by the U.S. Department of Energy's Experimental (DOE) Program to Stimulate Competitive Research (EPSCoR) Program. This program provides graduate students with a total of \$25,000 each for energy-related research with \$12,500 funded by DOE-EPSCoR and \$12,500 by the Authority.

Recipients of the awards include the following:

- Mr. Steven Kazzar, grant recipient, and Dr. H. A. Naseem of the Department of Electrical Engineering, University of Arkansas, Fayetteville, for the continued investigation of Silicon Nitrogen (SiN)-based alloys for possible use in high efficiency multijunction solar cells;
- Mr. Chris Masters, grant recipient, and Dr. A. J. Adams of the Department of Electronics and Instrumentation, University of Arkansas at Little Rock, for research and analysis of dry particles using an electrodynamic trap as a stack emission analysis technique;

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- Ms. Kathy Underhill-Shanks, grant recipient, and Dr. M. Keith Hudson of the Department of Electronics and Instrumentation, University of Arkansas at Little Rock, for continued research and application of specialized technology used to define and monitor combustion gases, such as the oxides of Nitrogen, Carbon Monoxide and Sulfur Dioxide;
- Ms. Marti Scharlau, grant recipient, and Dr. Dan J. Davis of the Department of Chemistry and Biochemistry, University of Arkansas, Fayetteville, for the study of the structure/function relationships in proteins involved in photosynthesis; and,
- Ms. Cheryl Schulman, grant recipient, and Dr. Terry J. Siebenmorgen of the Department of Biological and Agricultural Engineering, University of Arkansas, Fayetteville, for the study of the effects of drying air conditions on the drying rate of rice and resultant kernel quality.

The Authority's Board also approved funding of seven Basic Research Grants with awards totaling \$188,432. Recipients include:

- Dr. Sanjib Basu of the Department of Mathematical Sciences, University of Arkansas, Fayetteville, \$13,619 for research in the area of binary response regression, a useful technique for analyzing categorical data;
- Dr. John Ryan of the Department of Mathematical Sciences, University of Arkansas, Fayetteville, \$12,729 for his research and application of various algebraic equations to the study of boundary values and other complex mathematical problems;
- Dr. Robert R. Beitle, Jr., of the Department of Chemical Engineering, University of Arkansas, Fayetteville, \$29,801 for research and development of a new separation technology for use in the downstream processing of fermentation products;
- Dr. John R. English of the Department of Industrial Engineering, University of Arkansas, Fayetteville, \$35,673 for research, implementation, and evaluation of a probability-based approach to process diagnosis in an actual machining process;

- Dr. Nasir Memon of the Department of Computer Science, Arkansas State University, \$29,362 for research and development of lossy-image compression algorithms for multispectral data;
- Dr. Mark T. McCammon of the Department of Biochemistry and Molecular Biology, University of Arkansas for Medical Sciences, \$32,350 for research in the area of metabolism and genetic analysis;
- Dr. Gur P. Kaushal of the Department of Medicine/Nephrology, University of Arkansas for Medical Sciences, \$33,658 for research into the cellular mechanism underlying the thickening of the glomerular basement membrane, which is often associated with the development of Diabetes.

The Arkansas Science & Technology Authority is an independent state agency created to bring the benefits of science and advanced technology to the people and state of Arkansas. The agency carries out this mission through its programs in the areas of research and development. The goal of the Authority's Basic Research Grants Program and the Arkansas EPSCoR Program is to promote the growth and development of Arkansas scientists and to enhance the status of science and engineering in state colleges and universities. For more information on these and other Authority programs, please contact the office at 324-9006.